"Lit'l Sweetie" BOXWOOD STOVE

Model BX22EL Owners Manual

(save this manual for future reference)

READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING THE INSTALLATION OR OPERATING THE STOVE. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH.

DO <u>NOT</u> USE THIS STOVE IN A MOBILE HOME, MANUFACTURED HOME, TRAILER OR TENT – *<u>NO EXCEPTIONS!</u>*

O-TL US
OMNI-Test Laboratories, Inc.

This stove meets U.S. Test Standard: UL 1482-2006

SAFETY INSTRUCTIONS

SAFETY NOTICE: IF THIS STOVE IS NOT PROPERLY INSTALLED, A HOUSE/BUILDING FIRE MAY RESULT. FOR YOUR SAFETY, CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT PERMITS, RESTRICTIONS, AND INSTALLATION REQUIREMENTS FOR YOUR AREA.

READ ALL INSTRUCTIONS CAREFULLY.

1. The installation of this stove must comply with your local building code rulings. Please observe the clearances to combustibles. Do not place furniture or other objects within the clearance area (see reference figures 1 & 2).
2. **Do not install this stove in a mobile home, manufactured home, trailer or tent** (**NO EXCEPTIONS!** per HUD Federal Standard: 24 CFR Ch.XX).
3. Verify that the stove is properly installed before firing the stove for the first time. After reading these instructions, if you have any doubt about your ability to complete your installation properly, you must obtain the services of a professional licensed installer familiar with all aspects of safe and correct installation. DO NOT use temporary or makeshift compromises during installation.
4. If any parts are missing or defective, please notify the dealer or manufacturer immediately. DO NOT OPERATE A STOVE THAT IS MISSING ANY PARTS!
5. Do not tamper with combustion air control beyond normal adjustment capacities.
6. Always connect this stove to a chimney and vent to the outside. Never vent to another room or inside a building. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.
7. **DO NOT CONNECT** a wood burning stove to an aluminum Type B gas vent. This is not safe. Use approved masonry or a UL 103 HT Listed Residential Type and Building Heating Appliance Chimney. Use a 6" diameter chimney or larger, that is high enough to give a good draft (See specifics in installation instructions).
8. Be sure that your chimney is safely constructed and in good repair. Have the chimney inspected by the fire department or a qualified inspector. Your insurance company should be able to recommend a qualified inspector.

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9. Creosote or soot may build up in the chimney connector and chimney and cause a house/building fire. Inspect the chimney connector and chimney twice monthly during the heating season and clean if necessary (See Chimney Inspections, page 12).
10. In the event of a chimney fire, turn the air damper to closed position, leave the building and **CALL THE FIRE DEPARTMENT IMMEDIATELY!** Have a clearly understood plan on how to handle a chimney fire by contacting your local fire authority for information on proper procedures in the event of a chimney fire.
11. To prevent injury, do not allow anyone to use this stove who is unfamiliar with the correct operation of the stove.
12. Do not operate stove while under the influence of drugs or alcohol.
13. To prevent burns, always wear protective clothing, leather hearth gloves and eye protection, while tending the fire.
14. Ashes should not be allowed to accumulate higher than the slide damper. Dispose of ashes in a metal container with a tight fitting lid. Other waste shall not be placed in this container. Keep the closed container on a noncombustible floor or on the ground, well away from all combustible materials. Keep the ashes in the closed container until all cinders have thoroughly cooled. The ashes may be buried in the ground or picked up by a refuse collector.
15. The special paints used on your stove may give off some smoke and an odor while they are curing during the first 12 to 15 fires. Additional smoke and odor may be emitted from the light oils used in construction of the fire box. This should disappear after a short period of time and not occur again. Persons with lung conditions or owners of susceptible domestic pets (such as birds) should take prudent precautions. Open windows and doors as needed to clear smoke and/or odor. Paint discoloration will occur if the stove is over fired.
16. This stove has a painted surface which is durable but it will not stand rough handling or abuse. When installing your stove, use care in handling. Clean with soap and warm water when stove is **NOT** hot. Do not use any acids or scouring soap, as these solvents wear and dull the finish.
17. While stove is in operation, all persons, especially young children should be alerted to the hazards from high surface temperatures. Keep away from a hot stove to avoid burns or clothing ignition.
18. If small children will be in the same room as the stove during operation, provide a sturdy barrier to keep them at a safe distance from the stove. **NEVER LEAVE SMALL CHILDREN UNSUPERVISED** when they are in the same room as the stove.
19. Keep stove area clear and free from all combustible materials, gasoline, and other flammable vapors and liquids.
20. While in operation, keep the feed door closed and secured at all times except while tending the fire.
21. Do not over fire the stove. Over firing will occur if the feed door is left open during operation. Such actions can result in very dangerous operating conditions.
22. All power cords and electrical appliances and/or assemblies must be kept outside of the clearance dimensions shown in this manual for combustible materials.
23. **DO NOT ELEVATE FIRE!** Build fire directly on the bottom of the firebox. This stove has not been tested with the use of grates, andirons, or other means of elevating the fire and they should not be used.
24. For further information on using your stove safely, obtain a copy of the National Fire Protection Association (NFPA) publication, “Using Coal and Wood Stoves Safely” NFPA No. HS-10-1978. The address of the NFPA is Batterymarch Park, Quincy, MA 02269.

NOTE: A PROFESSIONAL, LICENSED HEATING AND COOLING CONTRACTOR SHOULD BE CONSULTED IF YOU HAVE QUESTIONS REGARDING THE INSTALLATION OF THIS SOLID FUEL BURNING APPLIANCE.

ASSEMBLY INSTRUCTIONS

NOTICE: Vogelzang International Corp. grants no warranty, stated or implied, for the installation or maintenance of your wood stove and assumes no responsibility of any incidental or consequential damages.

TOOLS REQUIRED

Safety Glasses
Pencil
6 foot Folding Rule or Tape Measure
Tin Snips
Drill: Hand or Electric
1/8" dia. Drill Bit (sheet metal screws)
Screwdrivers (blade and cross types)
5/16" Nut Driver or Ratchet with 5/16" Socket (for 1/4" Hex Nuts)
11mm Nut Driver or Ratchet with 11mm Socket (for Stove Bolts)

MATERIALS REQUIRED

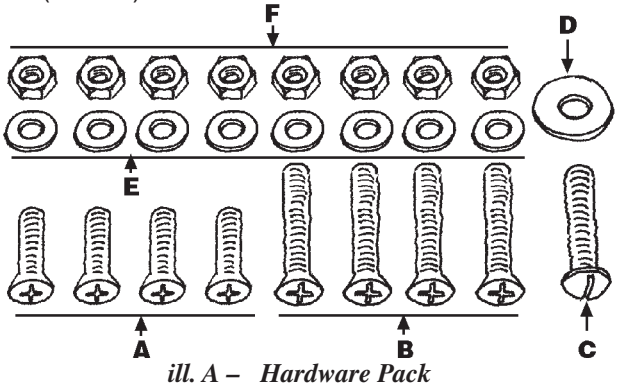
(NOTE: The following items are NOT included with your stove)

Flooring Protection: 36" x 48" as specified (see page 5)
Chimney Connection: 6" dia. min. 24 MSG black or 26 MSG blue steel stove pipe or elbow(s) required.
1/2" Sheet Metal Screws
Chimney: Existing 6" Lined Masonry Chimney or 6" Inside Dia. listed Type HT chimney.
Furnace Cement (manufacturer recommends Rutland Code 78 or equivalent)

CAUTION: STOVE IS HEAVY. MAKE SURE YOU HAVE ADEQUATE HELP AND USE PROPER LIFTING TECHNIQUES WHENEVER MOVING STOVE.

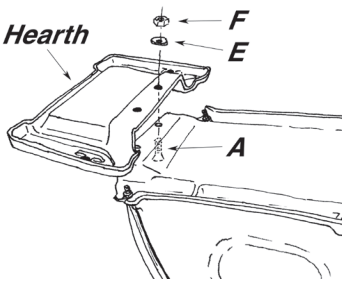
Refer to diagram and parts lists at back of this manual.

1. Uncrate the stove and remove packing materials and protective poly bag. (Save exterior cardboard box for further assembly.)
2. Remove parts from inside of stove. Parts include: one lid (L22-09), one damper collar (L22-12), one feed door (L22-07), one lid lifter (L-1), one slide damper (L22-06), seperable handle (L22-17A), four legs (L22-01 & 01b), heat shield (L22-14A), hardware pack (L22-HP), and S-Hook (L22-00) from inside firebox.

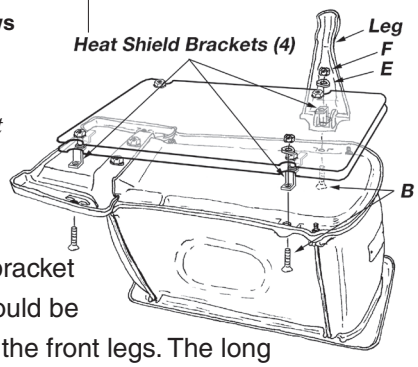


ill. A – Hardware Pack

3. Place flattened carton on floor and carefully turn stove over onto carton.
4. Attach hearth to bottom of stove with two short stove bolts (A), washers (E), and hex nuts (F).
5. The heat shield (L22-14A), illustration C, is held to the stove with the mounting bolts for the legs. Note that one of the legs has mounting holes for the seperable handle holder bracket and this leg should be used as one of the front legs. The long mounting bolts (B) pass through the clearance holes in the base of the stove, illustration C, through the rear legs, the heat shield brackets and then are secured with washers (E) and hex nuts (F).

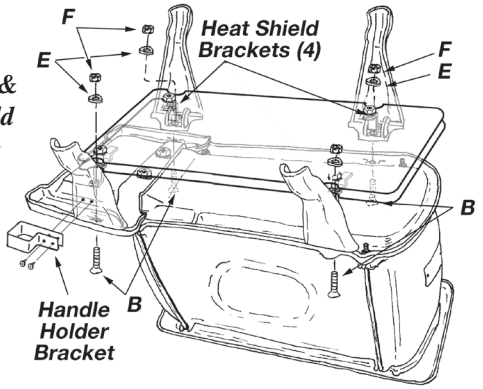


ill. B – Hearth Assembly



ill. C – Rear Leg & Heat Shield Assembly

6. The front legs attach in a similar method, illustration D, with the bolts (B) passing through mounting holes in the hearth, through the leg, heat shield brackets and are finally secured with washers (E) and hex nuts (F).



ill. D – Front Leg & Heat Shield Assembly

7. Attach the handle holder bracket (L22-18) to the front leg (L22-01b) with the mounting holes.
7. Carefully lift stove upright and place in desired location (see following instructions for properly locating stove).
8. Attach damper collar to rear top surface of stove, illustration E, using short stove bolts (A) flat washers (E) and hex nuts (F).
9. Place lid in position on top of stove.

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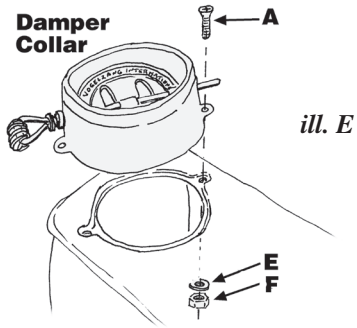
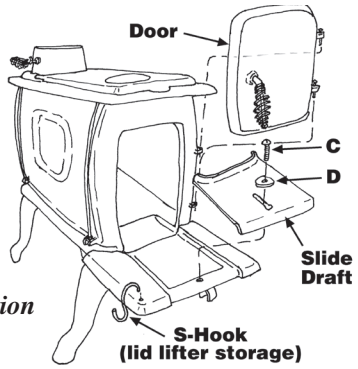


ill. E – Damper Collar



ill. F – Slide Draft, Door & S-Hook Location (lid lifter storage)

10. Place the slide draft into position on the hearth, illustration F. Hold in position with round head stove bolt (C) and large flat washer (D).
11. Lower feed door into position while aligning hinge pins.
12. Place S-Hook in hole at left front corner of hearth. Note: S-Hook is used to hang lid lifter while not in use.

LOCATING STOVE

Proper clearances must be maintained for adequate air circulation. Adequate ventilation must be provided while operating this stove.

1. The stove must be placed on solid concrete, solid masonry, or when installed on a combustible floor, on a listed floor protector, such as Hy-C or Imperial Model UL 3648BK, a 1/2" thick floor protector with a R-factor of 0.84 or equivalent (see page 14 to calculate R-factors of alternative materials). The base must extend at least 16" beyond the front of the hearth, 8" to the sides of the stove, and **must** extend under the stove pipe and 2˝ on either side if it is elbowed towards a wall (see figure 1 and consult local building codes and fire protection ordinances.)

CAUTION: (FIRE HAZARD) CARPETING AND OTHER COMBUSTIBLE MATERIAL MUST NOT COVER THE FLOOR PROTECTOR. THESE MATERIALS MUST REMAIN OUTSIDE OF COMBUSTIBLE CLEARANCES, SEE FIG. 1- 2.

2. The stove must have its own flue. **DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING OTHER APPLIANCES.**
3. After observing the clearances to combustible materials (figure 1 & 2), locate your floor protector accordingly (figure 1) and carefully place the stove in your selected location. Install connector pipe, elbows, and thimble as required, utilizing either a recently cleaned and inspected 6" masonry chimney or a 6" i.d. listed chimney, maximum 64 square inches.
4. Use round, 6" dia., minimum 24 MSG (minimum standard gauge) black or 26 MSG blue steel stove pipe. DO NOT use galvanized stove pipe. Secure pipe sections with three (3) sheet metal screws in each stove pipe and/or elbow joint to firmly hold the pipe sections together. **DO NOT CONNECT THIS STOVE TO ANY AIR DISTRIBUTION OR DUCT SYSTEM.**
5. Recheck clearances from the stove, connector stove pipe, and corner clearances using the location drawings (figure 1 & 2) and your local building codes or fire protection ordinances.

   NOTE: Drywall faced with brick or stone ***must*** be considered a combustible surface.
6. **DO NOT INSTALL THIS STOVE IN A MOBILE HOME, MANUFACTURED HOME, TRAILER OR TENT – *NO EXCEPTIONS! (HUD Federal Standard: 24 CFR Ch.XX)***
7. The clearances provided are minimum dimensions determined by NFPA. Installation of this stove must comply with the latest edition of NFPA 211 for reduced clearances and/or your local building code rulings. Use whichever minimum dimensions are LARGEST.

   Failure to follow these minimum clearance requirements may result in an unsafe installation and could cause a fire.

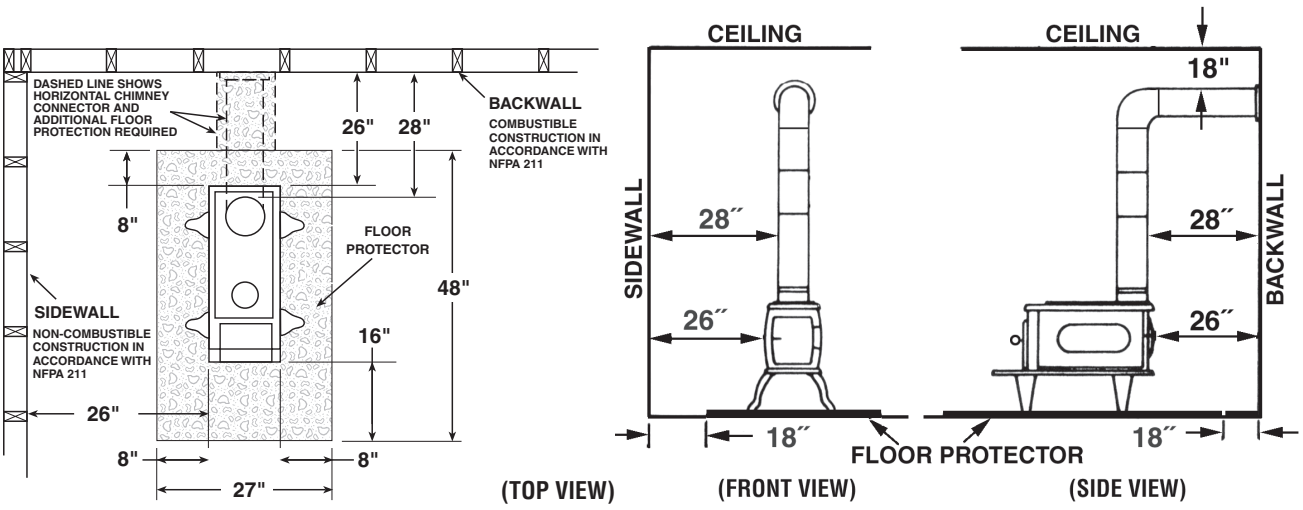


Fig. 1 – Minimum Clearance Dimensions from Combustible Surfaces

CORNER CLEARANCES

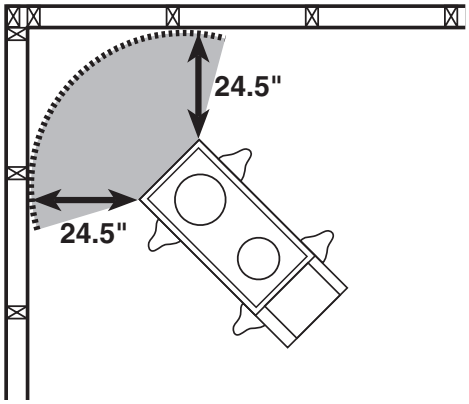


Fig. 2 – Top View
Minimum Corner Clearances from Combustible Surfaces

MINIMUM CLEARANCES TO COMBUSTIBLE SURFACES

Unit to Sidewall	26 inches
Unit to Backwall	26 inches
Unit Corner to Wall	24.5 inches
Pipe Connector to Backwall	28 inches
Pipe Connector to Ceiling	18 inches

CAUTION: KEEP FURNISHINGS AND OTHER COMBUSTIBLE MATERIALS AWAY FROM THE STOVE.

CONNECTOR PIPE INSTALLATION

NOTE: STOVE PIPE IS *NOT INCLUDED*. TO PURCHASE, VISIT YOUR LOCAL HARDWARE, HOME OR BUILDING CENTER. USE ROUND 6" DIA., MINIMUM 24 MSG (minimum standard gauge) BLACK OR 26 MSG BLUE STEEL STOVE PIPE. DO NOT USE GALVANIZED STOVE PIPE. SEE "LOCATING STOVE" PAGES 4-5 FOR ADDITIONAL SPECIFICATIONS.

1. The crimped end of the stovepipe fits into the cast iron damper collar. This first section must be single walled to properly connect to the damper. Install additional pipe and elbow(s) with the crimped end towards the stove. This will allow any condensation in the flue to run back into the firebox.
2. Horizontal pipe runs must slope upwards towards the chimney at least 1/4" per foot of horizontal run.
3. You must have at least 18 inches of clearance between any horizontal piping and the ceiling.
4. The pipe cannot extend into the chimney flue (figure 3).
5. Secure pipe/elbow sections with three (3) sheet metal screws at each joint to make the piping rigid.
6. It is recommended that no more than two (2) 90° bends be used in the stovepipe installation. The use of more than two 90° bends may decrease the amount of draw and possibly cause smoke spillage. Where possible, use only corrugated (nonadjustable) elbows. These provide a better seal.
7. The connector pipe must not pass through an attic or roof space, closet, or any concealed space, or floor, ceiling, wall, or combustible construction. (See Chimney Connector Systems & Clearances, page 15). A UL 103 HT Listed chimney **must** be used from the first penetration of ceiling or wall to the chimney cap.

CAUTION: NEVER USE SINGLE WALL CONNECTOR PIPE AS A CHIMNEY - A HOUSE FIRE COULD RESULT.

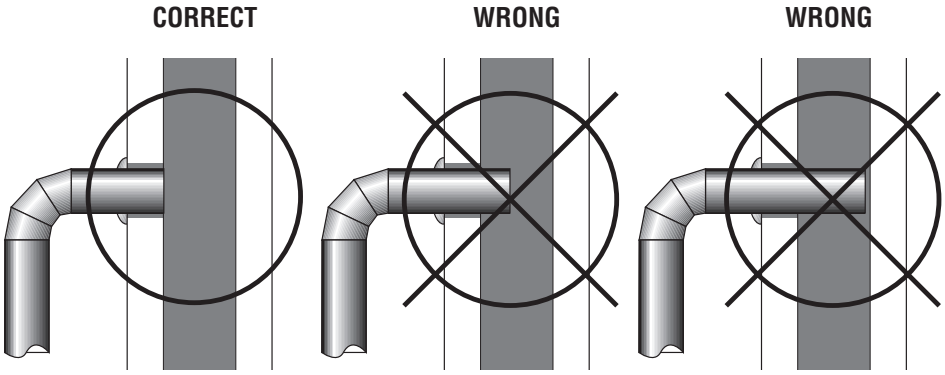


Fig. 3 – Stovepipe/Flue Connections

CHIMNEY CONNECTIONS

The stove must be connected to either a masonry or manufactured metal chimney built and tested to the specifications listed on the previous pages.
Chimneys perform two functions:

1). As a means of exhausting smoke and flue gases which are the result of fuel combustion.

2). The chimney provides “draft” which allows oxygen to be continuously introduced into the appliance, so that proper combustion is possible. This stove relies on natural draft to operate.

NOTICE: Always provide a source of fresh air into the room where the stove is located. Failure to do so may result in air starvation of other fuel burning appliances and the possible development of hazardous conditions, fire or death.

The stove DOES NOT create draft. Draft is created by the chimney. To achieve proper draft your chimney must meet the three minimum height requirements detailed in figures 4–7. A minimum draft of 0.05 w.c. (measured in water column) is required for proper drafting to prevent back puffing, smoke spillage, and to maximize performance. (Gauges to measure draft are readily available at stove stores and are economical to rent or purchase.)

Factors such as wind, barometric pressure, trees, terrain and chimney temperature can have an adverse effect on the draft. The manufacturer cannot be held responsible for external factors leading to less than optimal drafting.

Should you have a problem with inadequate draft, you should contact a licensed heating and cooling contractor for assistance in solving the problem.

IMPORTANT Installation Points

1. Size chimney flue to stove collar. This stove requires a 6” diameter flue.
2. Never connect this unit to a chimney serving another appliance.
3. The chimney must meet all minimum height requirements.
4. Never use a chimney to ventilate a cellar or basement.
5. Contact your local building authority for approved methods of installation and any necessary permits and/or inspections.

MASONRY CHIMNEY

Before using an existing masonry chimney, clean the chimney, inspect the flue liner and make any repairs needed to be sure it is safe to use. Make repairs before attaching the stove. The connector stove pipe and fittings you will need to connect directly to a masonry chimney are shown in figure 4.

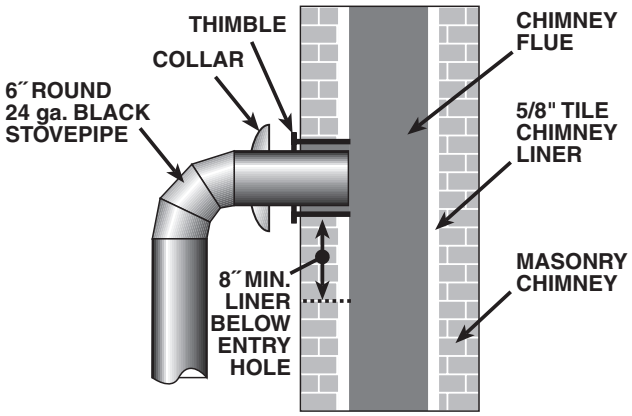


Fig. 4 - Masonry Chimney Connection

If the connector stove pipe must go through a combustible wall before entering the masonry chimney, consult a qualified mason or chimney dealer. The installation must conform to local building and fire codes and latest edition of NFPA 211.

If there is a cleanout opening in the base of the chimney, close it tightly.

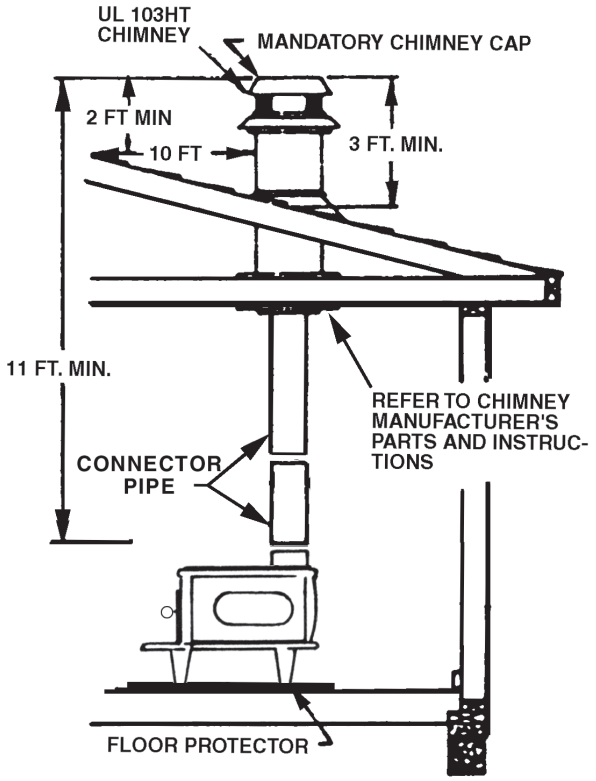


Fig. 5 - Chimney Construction Through Attic Space

MANUFACTURED CHIMNEY

REFER TO CHIMNEY AND CHIMNEY CONNECTOR MAKER'S INSTRUCTIONS FOR INSTALLATION AND USE.

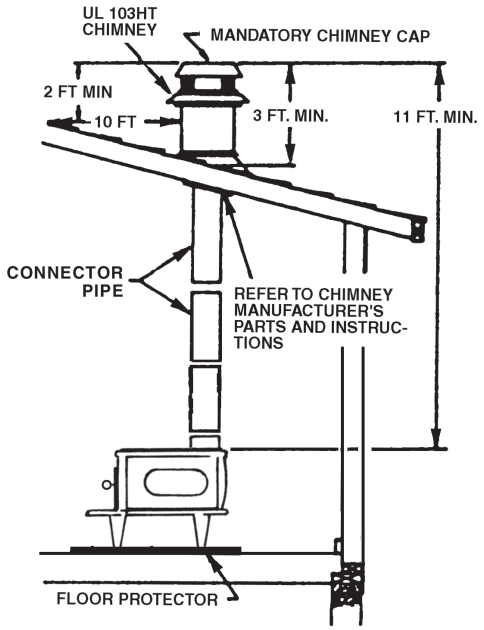


Fig. 6 - Chimney Construction Through Roof

Use only 6" diameter listed chimney UL 103 HT. Chimney made to this listing is High Temperature rated to 2100 degrees Fahrenheit. Use chimney from only one manufacturer. Never mix brands. Carefully follow the chimney manufacturer's stated requirements and clearances. Use the chimney manufacturer's attic guards, roof supports, flashing, and fire stops when passing through a ceiling. Use a listed thimble when passing through a combustible wall. Do not use makeshift compromises during installation. ***Never use a single-wall connection pipe as a chimney!***

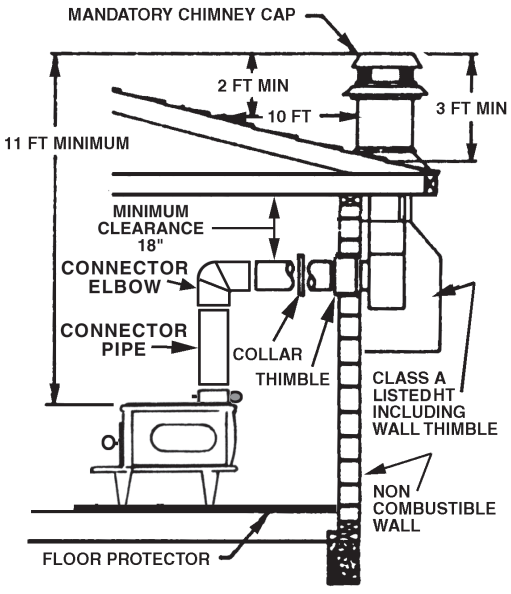


Fig. 7 - Chimney Connection to Firebox Through Masonry Wall

When using a pre-existing chimney, have it's condition and installation inspected before using. Make sure that the chimney meets all of the UL rating requirements listed above. Be aware that not all manufactured chimney is of the UL 103 HT type.

NOTE: It is recommended that you contact a licensed heating and cooling contractor (consult your local yellow pages) for chimney installation.

Manufactured chimney with the proper required UL listing is available from most home centers, hardware stores, and HVAC supply stores.

If you have access to the internet, you may wish to view chimney manufacturers' information on-line. See, www.duravent.com, www.selkirkinc.com, or www.mtlfab.com.

VENTING TO EXISTING FIREPLACE

In some instances, people desire to convert an existing fireplace for stove use. Usually, safe connection to an existing masonry chimney requires more work than using a prefabricated chimney. The existing fireplace must be closed and sealed at the damper with high-temperature caulk, ceramic wool, or furnace cement. Prior to installation, clean and inspect the existing flue and smoke shelf. Installation should be designed so the system can be dismantled for periodic cleaning and inspection. **Before conversion, make sure the existing chimney is structurally sound, the chimney incorporates a flue liner and make sure it is in good condition.** (A flue liner consists of clay tile that protects the brickwork of a chimney. If a chimney does not have a liner, or it is damaged, have it relined by a professional. ***DO NOT USE a chimney that is unlined or damaged!***) If you have any question regarding the condition of the chimney, consult a qualified licensed contractor, qualified engineer, competent mason, certified Chimney Sweep, or a knowledgable inspector. Consult your insurance company if you cannot find a qualified expert.

CAUTION: NOT ALL FIREPLACE CHIMNEYS ARE SUITABLE FOR USE WITH A WOOD STOVE. CHECK WITH A QUALIFIED EXPERT.

Many prefabricated fireplaces are of the "zero-clearance fireplace" category. These consist of multilayered metal construction. They are designed with enough insulation and/or air cooling on the base, back and sides so they can be safely installed in direct contact with combustible floors and walls. Although many prefabricated fireplaces carry endorsements from nationally recognized organizations for use as fireplaces, they have not been tested for connection to wood stove heaters. Connecting a stove to such a device will void the manufacturer's warranty.

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Steel-lined fireplaces are constructed with 1/4" firebox liner, an air chamber in connection with 8" of masonry. These can be safely used with wood burning stoves. They contain all the essential components of a fireplace, firebox, damper, throat, smoke shelf, and smoke chamber. Many look identical to masonry fireplaces and should be checked carefully before connecting a stove to them.

Venting a stove directly into a fireplace does not meet code and should not be attempted. (This constitutes connection to another appliance - the fireplace.) Combustion products will be deposited and build up in the firebox or fireplace. The stove warranty will be void with such an installation. Do not create a hazard in your home by connecting in this manner.

FIREPLACE INSTALLATION

Directly connecting the stovepipe into the existing masonry chimney (figure 8 "Type A" Fireplace Conversion) of the fireplace is the only approved method of installation. This is a complicated and involved process and to ensure safety should only by done by a qualified installer.

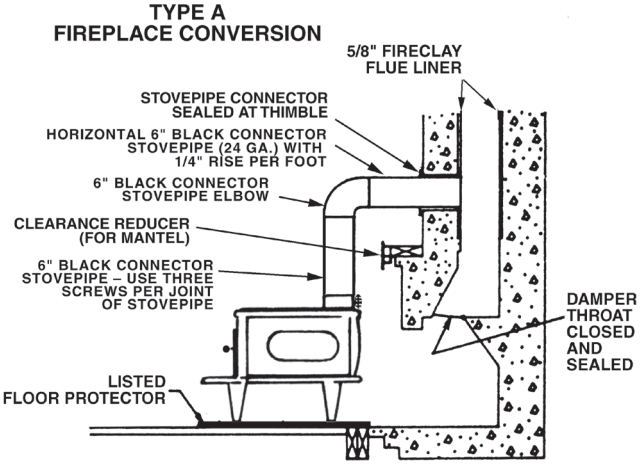


Fig. 8 - Fireplace Conversion

1. An entry hole must be cut through the masonry and tile liner with minimal damage to the liner. At least 8" of liner must remain below the entry position. When locating the stove and stovepipe, all minimum clearances must be observed from combustible surfaces including mantels, combustible trimwork, ceilings, and walls. Positioning the center of the stove pipe entry into the chimney 24" below the ceiling should insure proper clearance for a 6" stovepipe.
2. Install a metal or fire clay (5/8" minimum thickness) thimble. Make sure the thimble is flush with the inner surface of the chimney liner and does not protrude into the flue (see figure 3 on page 6).
3. Secure the thimble with refractory mortar. The thimble should be surrounded by 8" of solid unit masonry brickwork or 24" of stone.
4. Install the stovepipe into the thimble as far as possible without extending past the flue lining (see figures 3 on page 6).
5. A small airspace (about 1/2") should remain between the stovepipe and thimble to allow for expansion of the pipe. Seal this airspace with high-temperature caulking or ceramic wool.
6. Secure and seal the damper in the closed position using high-temp caulking, ceramic wool, or furnace cement. Also check to see if the chimney has a cleanout. If it does, make sure it is closed and sealed as well. A leaky cleanout will greatly reduce draft efficiency.

If you have any questions regarding venting your stove, contact the manufacturer or contact the National Fire Protection Association (NFPA) and request a copy of the latest editions of NFPA Standard 211 and NFPA Standard 908. Their address is:

Battery March Park, Quincy, MA 02269.

CAUTION: HOUSE FIRE HAZARDS

• DO NOT STORE WOOD ON FLOOR PROTECTOR, UNDERNEATH STOVEPIPE, OR ANYWHERE WITHIN MINIMUM CLEARANCES FROM COMBUSTIBLE SURFACES SPECIFIED FOR THIS STOVE.

• OVERFIRING MAY CAUSE A HOUSE FIRE. YOU ARE OVERFIRING IF THE STOVE OR CHIMNEY CONNECTOR GLOWS RED.

WARNING: EXPLOSION HAZARD

• NEVER USE CHEMICALS, GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR FLAMMABLE LIQUIDS TO START OR "FRESHEN-UP" A FIRE IN THE STOVE.

• KEEP ALL FLAMMABLE LIQUIDS, ESPECIALLY GASOLINE, OUT OF THE VICINITY OF THE STOVE — WHETHER IN USE OR IN STORAGE.

OPERATING SAFETY PRECAUTIONS

1. NEVER OVERFIRE THIS STOVE BY BUILDING EXCESSIVELY HOT FIRES AS A HOUSE/BUILDING FIRE MAY RESULT. YOU ARE OVERFIRING THE STOVE IF STOVE OR STOVEPIPE BEGINS TO GLOW OR TURN RED.

2. NEVER BUILD EXTREMELY LARGE FIRES IN THIS TYPE OF STOVE AS DAMAGE TO THE STOVE OR SMOKE LEAKAGE MAY RESULT.

3. STOVE IS HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING, AND FURNITURE AWAY FROM HOT STOVE. CONTACT MAY CAUSE SKIN BURNS. DO NOT TOUCH THE STOVE AFTER FIRING UNTIL IT HAS COOLED.

4. PROVIDE AIR INTO THE ROOM FOR PROPER COMBUSTION.

5. INSPECT STOVEPIPE EVERY 60 DAYS. REPLACE IMMEDIATELY IF STOVEPIPE IS RUSTING OR LEAKING SMOKE INTO THE ROOM.

This stove is designed to burn WOOD FUEL ONLY.

Hardwood, 18" to 20" should be split and air dried (seasoned), for 6 months to obtain maximum burning efficiency. Wood should be stored in a dry, well ventilated area.

NOTICE: USE SOLID WOOD MATERIALS ONLY. DO NOT BURN PELLETS, PRESSED LOGS, GARBAGE OR FLAMMABLE FLUIDS. DO NOT USE COAL OR CHARCOAL AS THEY WILL DESTROY THE FIREBOX.

NOTE: A 2" layer of sand or a layer of firebrick should be used as bottom insulation in the Boxwood stove.

LIGHTING

1. Open draft damper fully to provide maximum draft.
2. Open the feed door and place several wads of crushed paper in the firebox.
3. Lay small stacks of kindling on the paper to start the fire.
4. Light the paper and kindling, close the door and secure tightly.
5. Add fuel after fire is burning briskly. Use care not to smother the kindling fire when adding wood. Close the door and secure tightly.
6. Adjust the draft damper and slide draft control. The more closed the slide draft is set, the lower and slower the fire will burn. The more open, the faster and hotter the fire will burn. Do not overfire the stove.

ADDING FUEL

Add small amounts of fuel each hour or so instead of piling large quantities of fuel at one time. This will ensure a more complete combustion process and less buildup of tars, soot, or creosote will occur in the chimney.

1. Always open draft damper before opening the feed door.
2. When adding fuel be careful not to smother the fire.
3. Close the feed door and secure tightly.
4. Adjust the damper and slide draft control.
5. Empty ashes regularly. Do not allow ashes to pile up higher than the top lip of the slide draft.

continued on next page

6. Properly dispose of hot ashes (see Safety Instructions, item #13 on page 2.)
7. Do not overfire the stove.

CAUTION: DO NOT OVERFIRE APPLIANCE. TOO MUCH WOOD OR BURNING NON-RECOMMENDED MATERIALS SUCH AS TRASH OR FLAMMABLE LIQUIDS MAY CAUSE OVERFIRING. YOU ARE OVERFIRING IF THE CHIMNEY CONNECTORS OR STOVE GLOWS RED. CLOSE THE DOOR, SLIDE DRAFT, AND DAMPER IMMEDIATELY TO REDUCE THE AIR SUPPLY TO THE FIRE. THIS WILL SLOW DOWN THE FIRE.

CAUTION: SLOW BURNING FIRES AND EXTENDED USE MAY CAUSE EXCESSIVE CREOSOTE BUILDUP. IGNITION OF CREOSOTE BUILDUP OR OVERFIRING MAY CAUSE A CHIMNEY FIRE. CHIMNEY FIRES BURN EXTREMELY HOT AND MAY IGNITE SURROUNDING MATERIALS. IN CASE OF A CHIMNEY FIRE IMMEDIATELY LEAVE THE BUILDING AND CALL THE FIRE DEPARTMENT FROM A SAFE LOCATION.

ASH DISPOSAL – Do not allow ashes to accumulate higher than the slide draft. Dispose of properly. (See Safety Instructions #14, page 2.)

CHIMNEY DRAFT – Draft is a function of the chimney, not the stove — do not expect the stove to draw. Smoke spillage into the house or excessive buildup of condensation or creosote in the chimney are warnings that the chimney is NOT functioning properly. Correct the problem before using the stove. Following are some possible causes for improper draft.

1. The connector stovepipe may be pushed into the chimney too far, stopping the draft.
2. If the chimney temperature is too cool, water will condense in the chimney and run back into the stove. Creosote formation will be rapid and may block the chimney. Operate the stove at a fire level high enough to keep the chimney warm to prevent condensation from forming.
3. If the fire burns well but sometimes creates excess smoke or burns slowly, it may be caused by the chimney top being lower than another part of the house or a nearby tree. The wind blowing over a house or tree, falls on top of the chimney like water over a dam, beating down the smoke. The top of the chimney should be at least three (3) feet above the roof and be at least two (2) feet higher than any point of the roof within ten (10) feet.

CREOSOTE – Formation and Removal. Slow-burning wood produces tar and other organic vapors which combine with expelled moisture to form creosote. Creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. If ignited, this creosote creates an extremely hot fire which may ignite surrounding materials resulting in a building fire.

If creosote has accumulated, it should be removed. Failure to remove creosote may result in ignition and may cause a house/building fire. Creosote may be removed using a chimney brush or other commonly available materials from your local hardware retailer.

CHIMNEY INSPECTIONS – The chimney connector and chimney should be inspected **at the beginning** of and **at least twice a month during** the heating season to determine if a creosote buildup has occurred.

Chimney fires burn very hot. If the chimney connector should glow red, reduce the fire by closing the damper and spin draft control and immediately call the fire department.

CAUTION: A CHIMNEY FIRE MAY CAUSE IGNITION OF WALL STUDS OR RAFTERS WHICH WERE ASSUMED TO BE A SAFE DISTANCE FROM THE CHIMNEY. IF A CHIMNEY FIRE HAS OCCURRED, HAVE YOUR CHIMNEY INSPECTED BY A QUALIFIED EXPERT BEFORE USING AGAIN.

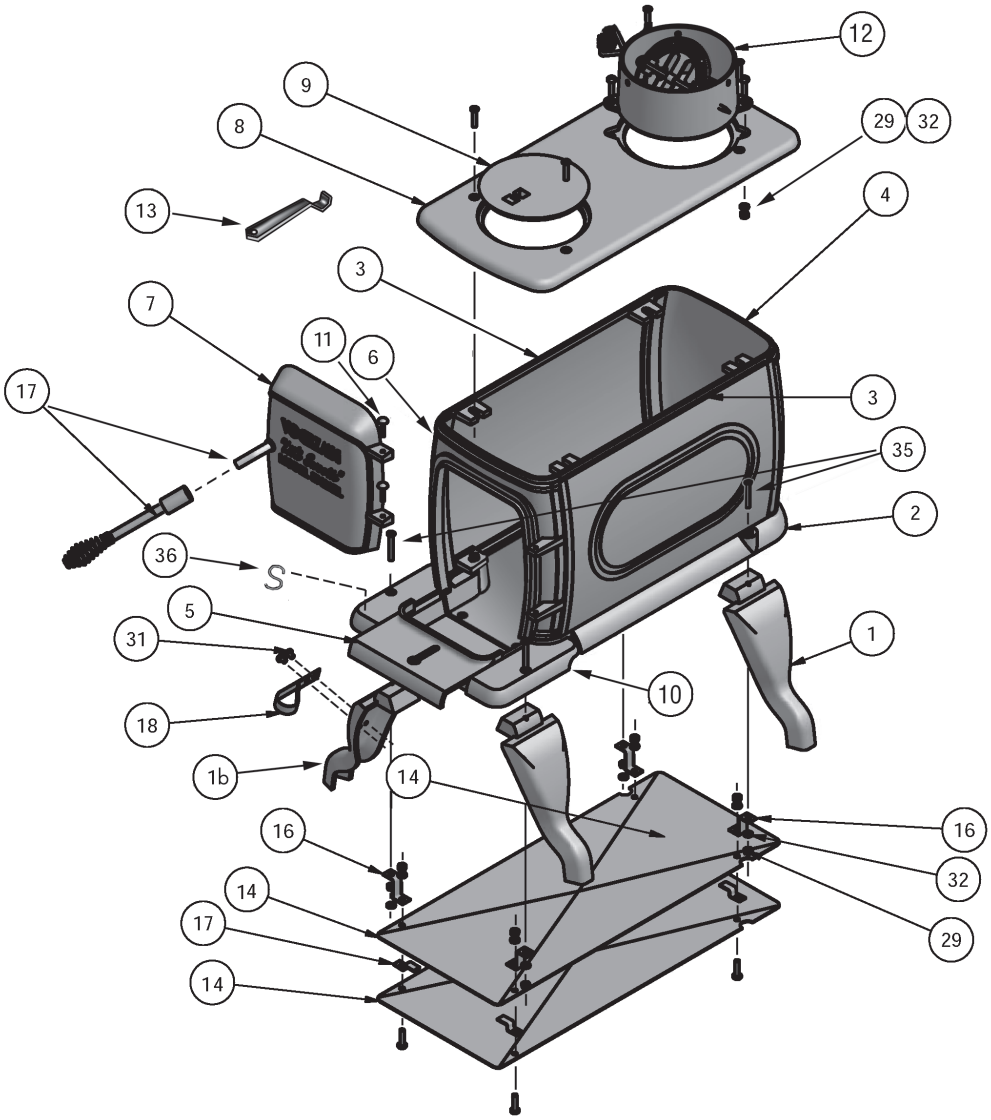
A fire in the stove may be smothered by pouring a large quantity of coarse salt, baking soda, or cool ashes on top of the fire.

STOVE JOINTS – Required Tune-up. This stove is manufactured with cast iron components. ***IT DOES NOT HAVE WELDED SEAMS.*** Periodic “tune up” may be required by refilling and/or replacing the cement/joint mortar along the seams where the cast iron components meet.

ORDERING PARTS - BX22EL BOXWOOD STOVE

When ordering missing or replacement parts, always give the **Model Number** of the stove, **Part Number**, and **Part Description**. Use the illustration and parts list provided to identify parts.

Ref. No.	Part No.	Description	Qty.
01	L22-01	Leg	3
01b	L22-01b	Leg (with mounting holes)	1
02	L22-02	Bottom	1
03	L22-03	Side	2
04	L22-04	Back	1
05	L22-05	Slide Draft Damper	1
06	L22-06	Front	1
07	L22-07	Feed Door	1
08	L22-08	Top	1
09	L22-09	Lid	1
10	L22-10	Hearth	11
11	L22-11	Door Pin	2
12	L22-12A	Damper Collar Assembly	1
13	L-1	Lid Lifter	1
14	L22 14A	Heat Shield Assembly	1
15	L22-15	Heat Shield Hanger	4
16	L22-16	Heat Shield Separator	4
17	L22-17A	Separable Handle Assembly	1
18	L22-18	Handle Holder	1
19	L22-HP	Hardware Pack, Complete	1
29	M6x1	Hex Nut	4
31	M6x1 x 8	Pan Hd. Mach. Srew	2
32	M6	Lock Washer	4
35	M6x1 x 45	Leg Bolt	4
36	L22-S	S-hook	1



FLOOR PROTECTOR MATERIAL CALCULATIONS

This stove has been tested for and must be installed on a floor protector with the proper Thermal Resistance or R-value as stated in the installation instructions on page 3, "Locating Stove" step 1, of this manual. If the floor protector materials listed in the instructions are not available, materials with an equivalent R-value may be substituted.

Alternate materials may be rated with C-factor (Thermal Conductance) or k-factor (Thermal Conductivity) ratings which must be converted to R-value to determine if the alternate material meets the tested requirements. The following instructions provide the proper information and formulas for conversion to R-value.

To determine if alternate materials are acceptable follow this sequence.

1. Convert material specifications to R-value:
   a. R-value given — no conversion necessary
   b. k-factor is given with a required thickness (T) in inches:
      R = 1/k x T
   c. C-factor is given: R = 1/C
2. Determine the R-value of proposed alternate floor protector:
   a. Use formulas in step 1 above to calculate R-value of proposed material(s).
   b. For multiple layers, add R-values of each layer to determine overall R-value.
3. If the overall R-value of the floor protector system is equal to or greater than the floor protector specifications given, the alternate is acceptable.

Definitions:

Thermal conductance (C) = $\frac{\text{BTU}}{(\text{hr})(\text{ft}^2)(^\circ\text{F})} = \frac{\text{W}}{(\text{m}^2)(^\circ\text{K})}$

Thermal conductivity (k) = $\frac{(\text{Btu})(\text{inch})}{(\text{hr})(\text{ft}^2)(^\circ\text{F})} = \frac{\text{W}}{(\text{m})(^\circ\text{K})} = \frac{\text{Btu}}{(\text{hr})(\text{ft})(^\circ\text{F})}$

Thermal resistance (R) = $\frac{(\text{ft}^2)(\text{hr})(^\circ\text{F})}{\text{Btu}} = \frac{(\text{m}^2)(^\circ\text{K})}{\text{W}}$

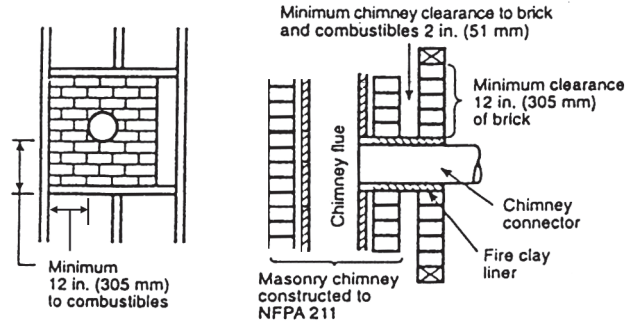
Example:
The specs of floor protector material should be 3/4-inch thick material with a k-factor of 0.84.
The proposed alternative material is 4" brick with a C-factor of 1.25 over 1/8-inch mineral board with a k-factor of 0.29.

Step 1: Convert specs to R-value.
R = 1/k x T = 1/0.84 x 0.75 = 0.893 System must have a R-value of 0.893 = Rspecs

Step 2: Calculate R-value of individual components
4" Brick with C-factor = 1.25. R = 1/C = 1/1.25 = 0.80 = Rbrick
1/8-inch (0.125") mineral board with k-factor = 0.29. R = 1/0.29 x 0.125 = 0.431 = Rmin.brd.

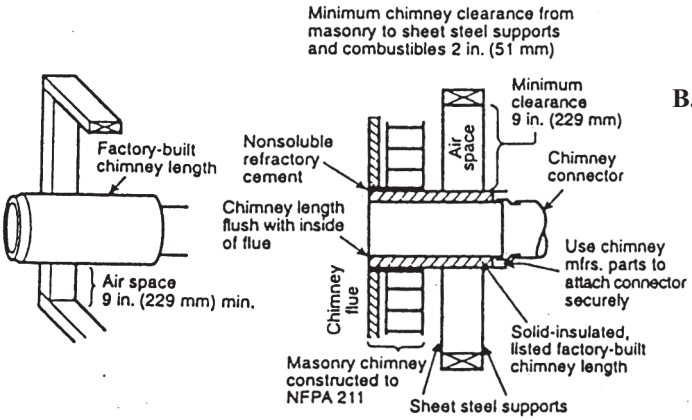
Step 3: Add R-values of components to get total R-value of system
Rbrick + Rmin.brd = 0.80 + 0.431 = 1.231 = Rsystem

Step 4: Compare Rsystem to Rspecs
Rsystem = 1.231 is larger than Rspecs of 0.893. System R-value exceeds the required specifications and therefore is an acceptable alternative.



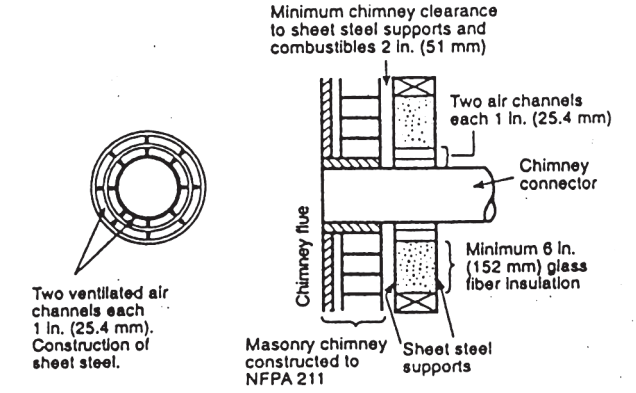
A. Brick Masonry

Minimum 3.5″/ 89mm thick brick masonry all framed into combustible wall with a minimum of 12″/305mm brick separation from clay liner to combustibles. The fireclay liner shall run from outer surface of brick wall to, but not beyond, the inner surface of chimney flue liner and shall be firmly cemented in place.



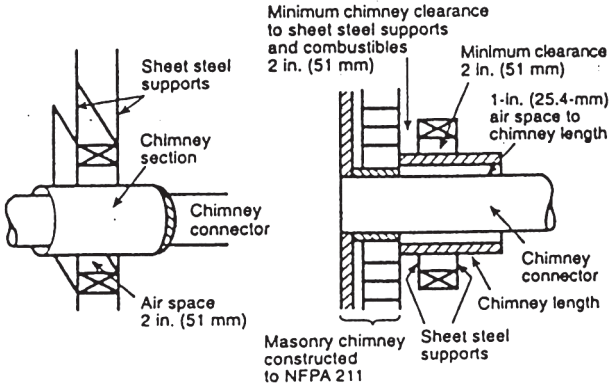
B. Insulated Sleeve

Solid-insulated, listed factory-built chimney length of the same inside diameter as the chimney connector and having 1″/25.4mm or more of insulation with a minimum 9″/229mm air space between the outer wall of the chimney length and combustibles.



C. Ventilated Thimble

Sheet steel chimney connector, minimum 24 gauge in thickness, with a ventilated thimble, minimum 24 gauge in thickness, having two 1″/25.4mm air channels, separated from combustibles by a minimum of 6″/152mm of glass fiber insulation. Opening shall be covered, and thimble supported with a sheet steel support, minimum 24 gauge in thickness.



D. Chimney Section Pass-through

Solid insulated, listed factory-built chimney length with an inside diameter 2″/51mm larger than the chimney connector and having 1″/25.4mm or more of insulation, serving as a pass-through for a single wall sheet steel chimney connector of minimum 24 gauge thickness, with a minimum 2″/51mm air space between the outer wall of chimney section and combustibles. Minimum length of chimney section shall be 12″/305mm chimney section spaced 1″/25.4mm away from connector using sheet steel support plates on both ends of chimney section. Opening shall be covered, and chimney section supported on both sides with sheet steel support securely fastened to wall surfaces of minimum 24 gauge thickness. Fasteners used to secure chimney section shall not penetrate chimney flue liner.

This Vogelzang heating appliance is safe when installed properly and will provide you with years of service. However, always exercise good judgement when you are using this stove. You are dealing with FIRE! Fire is inherently dangerous and must be treated with respect. Stay warm and in good health!

Respectfully yours,

Steve Vogelzang

Proprietor

DO <u>NOT</u> USE THIS STOVE IN A MOBILE HOME, MANUFACTURED HOME, TRAILER OR TENT — *<u>NO EXCEPTIONS!</u>*

COMPANY TESTIMONY:

"FOR GOD SO LOVED THE WORLD THAT HE GAVE HIS ONLY BEGOTTEN SON, THAT WHOEVER BELIEVES IN HIM SHALL NOT PERISH BUT HAVE ETERNAL LIFE"

JOHN 3:16

MADE IN CHINA

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